AMENDMENT
Serial No. 10/679,897
Docket No. 2003-0253.02

In the Claims:

Please amend the claims as follows:

1-4. (CANCELLED)

5. (CURRENTLY AMENDED) The inkjet assembly of claim ~~1~~ 9, wherein the semipermeable membrane defines a non-circular gaseous throughput.

6. (PREVIOUSLY CANCELLED)

7. (CURRENTLY AMENDED) The inkjet assembly of claim ~~1~~ 9, wherein the semipermeable membrane includes a cross-sectional area for gaseous throughput ranging from between about 0.5 cm^2 to about 6 cm^2.

8. (CANCELLED)

9. (CURRENTLY AMENDED) An inkjet assembly comprising:

a vented ink reservoir for containing a liquid ink therein, the vented ink reservoir defining an internal volume occupied at least in part by a semipermeable membrane in fluid communication with a vent that automatically adjusts for pressure differentials by enabling gaseous diffusion between an environment external to the vented ink reservoir and the internal volume of the vented ink reservoir and concurrently inhibiting liquid diffusion therethrough, wherein at least a portion of the semipermeable membrane is angled other than parallel with respect to an operating level of the liquid ink within the vented ink reservoir;

~~The inkjet assembly of claim 8,~~ wherein:

the vented ink reservoir includes a cap mounted to a tank;

the semipermeable membrane is mounted to the cap;

the cap includes a raised hump providing a space adapted to trap gas therein above a highest level of liquid ink within the vented ink reservoir; and

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at least a portion of the semipermeable membrane extends into the space provided by the raised hump.

10. (CURRENTLY AMENDED) An inkjet assembly comprising:

a vented ink reservoir for containing a liquid ink therein, the vented ink reservoir defining an internal volume occupied at least in part by a semipermeable membrane in fluid communication with a vent that automatically adjusts for pressure differentials by enabling gaseous diffusion between an environment external to the vented ink reservoir and the internal volume of the vented ink reservoir and concurrently inhibiting liquid diffusion therethrough, wherein at least a portion of the semipermeable membrane is angled other than parallel with respect to an operating level of the liquid ink within the vented ink reservoir;

~~The inkjet assembly of claim 8,~~ wherein:

the vented ink reservoir includes a cap mounted to a tank;

the semipermeable membrane is mounted to the cap;

an underside of the cap, partially defining the internal volume of the vented ink reservoir, includes a downwardly extending closed wall mounted to the semipermeable membrane that cooperate to at least partially define a gaseous cavity within the internal volume; and

at least a portion of the gaseous cavity extends into the liquid ink when the vented ink reservoir is full of liquid ink.

11. (CURRENTLY AMENDED) An inkjet assembly comprising:

a vented ink reservoir for containing a liquid ink therein, the vented ink reservoir defining an internal volume occupied at least in part by a semipermeable membrane in fluid communication with a vent that automatically adjusts for pressure differentials by enabling gaseous diffusion between an environment external to the vented ink reservoir and the internal volume of the vented ink reservoir and concurrently inhibiting liquid diffusion therethrough, wherein at least a portion of the semipermeable membrane is angled other than parallel with respect to an operating level of the liquid ink within the vented ink reservoir;

~~The inkjet assembly of claim 8,~~ wherein:

the vented ink reservoir includes a cap mounted to a tank;

the semipermeable membrane is mounted to the cap;

an underside of the cap includes a downwardly extending closed wall to which the semipermeable membrane is mounted thereto to at least partially define a gaseous cavity within the internal volume; and

a top side of the cap includes a humped portion corresponding to an elevated cavity within the underside of the cap adapted to be occupied by a trapped gas, where at least a portion of the semipermeable membrane is in communication with the trapped gas.

12. (PREVIOUSLY AMENDED) The inkjet assembly of claim 11, wherein at least a portion of the elevated cavity is occupied by the gaseous cavity.

13. (CURRENTLY AMENDED) The inkjet assembly of claim ~~8~~ 9, wherein the cap includes an ink inlet adapted to be in fluid communication with the internal volume of the vented ink reservoir.

14. (CURRENTLY AMENDED) The inkjet assembly of claim ~~8~~ 9, wherein the cap includes a serpentine tunnel extending therealong in fluid communication with the vent.

15-16. (CANCELLED)

17-18. (PREVIOUSLY CANCELLED)

19-27. (CANCELLED)

28. (CURRENTLY AMENDED) An ink reservoir cap adapted to be mounted to an ink tank to provide a vented ink reservoir automatically regulating the internal pressure therein, the ink reservoir cap comprising:

a cap body adapted to be mounted to an ink tank to provide a vented ink reservoir, the cap body and ink tank define an interior volume available for ink occupation and the cap body includes a semipermeable membrane covering a vent extending therethrough, the membrane is housed within the interior volume to provide gaseous communication, but restrict liquid communication, between an external environment and the interior volume of the vented ink reservoir, wherein gaseous diffusion across the semipermeable membrane can occur when liquid ink is in direct contact with the semipermeable membrane;

~~The ink reservoir cap of claim 26,~~ wherein the cap body further includes a raised space in fluid communication with the semipermeable membrane, the raised space adapted to trap a volume of gas above a highest operating level of liquid ink within the vented ink reservoir.

29. (PREVIOUSLY AMENDED) The ink reservoir cap of claim 28, wherein at least a portion of the semipermeable membrane is adapted to be in communication with gas within the raised space.

30. (CURRENTLY AMENDED) The ink reservoir cap of claim ~~26~~ 28, wherein the cap body further includes a plurality of alignment pins adapted to align the cap body with respect to the ink tank prior to mounting the cap body onto the ink tank.

31. (CURRENTLY AMENDED) The ink reservoir cap of claim ~~26~~ 28, wherein the cap body and the ink tank include a channel and a corresponding rib adapted to interact with the channel to provide an interface adapted to be fluidically sealed and provide a vented ink reservoir.

32. (NEWLY ADDED) The inkjet assembly of claim 10, wherein the semipermeable membrane defines a non-circular gaseous throughput.

33. (NEWLY ADDED) The inkjet assembly of claim 11, wherein the semipermeable membrane defines a non-circular gaseous throughput.

34. (NEWLY ADDED) The inkjet assembly of claim 10, wherein the cap includes an ink inlet adapted to be in fluid communication with the internal volume of the vented ink reservoir.

35. (NEWLY ADDED) The inkjet assembly of claim 11, wherein the cap includes an ink inlet adapted to be in fluid communication with the internal volume of the vented ink reservoir.

36. (NEWLY ADDED) The inkjet assembly of claim 10, wherein the cap includes a serpentine tunnel extending therealong in fluid communication with the vent.

37. (NEWLY ADDED) The inkjet assembly of claim 11, wherein the cap includes a serpentine tunnel extending therealong in fluid communication with the vent.

38. (NEWLY ADDED) A method of regulating the pressure between an interior volume of an ink container and an external environment, the method comprising the steps of:

mounting a semipermeable membrane to an interior conduit extending into an interior of an ink container;

inputting ink into the ink container to partially submerge the semipermeable membrane and partially submerge the interior conduit, where the semipermeable membrane is angled between 15 degrees and 75 degrees with respect to an operating level of ink within the ink container as ink is withdrawn from the ink container, where at least a portion of the semipermeable membrane is in fluid communication with an air pocket formed within a highest location within the ink container, and where the ink container includes a fill orifice that is vertically lower than the air pocket; and

regulating a pressure differential between the interior volume and the external environment facilitating gaseous diffusion through the semipermeable membrane and inhibiting liquid diffusion through the semipermeable membrane.

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